## IN THE CLAIMS

1. (Currently Amended) A method of treating an individual in need of treatment for a vascular permeability disorder, comprising administering to the individual in need of treatment for a vascular permeability disorder a therapeutically effective amount of a vascular endothelial sphingosine-1-phosphate receptor agonist, wherein the vascular endothelial sphingosine-1-phosphate receptor agonist is not sphingosine-1-phosphatea 1,2-aminoalcohol, a pharmaceutically acceptable salt thereof, or a phosphorylated form thereof, having the formula

wherein  $R_1$  is a substituted or unsubstituted straight- or branched carbon chain having 12 to 22 carbon atoms, and each of  $R_2$ ,  $R_3$ ,  $R_4$  and  $R_5$  are independently hydrogen or lower alkyl.

- 2. (Cancelled).
- 3. (Currently Amended) The method of Claim  $\underline{12}$ , wherein  $R_1$  is interrupted by a substituted or unsubstituted phenylene.
- 4. (Currently Amended) The method of Claim 3, wherein the vascular endothelial sphingosine-1-phosphate receptor agonist is 2-amino-2-[2-(4-octaphenyl)ethyl]propane-1,3 diol, 2-amino-2-methyl-4-[4-heptoxy-phenyl]butane-1-ol, 2-amino-3-phosphate-2-[2-4-octaphenyl)ethyl]propane-1-ol, 2-amino-2-methyl-4-[4-heptoxy-phenyl]1-diphosphoric acid, or a combination comprising one or more of the foregoing agoniststsagonists.
- 5. (Previously Presented) The method of Claim 1, wherein the vascular endothelial sphingosine-1-phosphate receptor agonist is phosphorylated by sphingosine kinase-2.
- 6. (Previously Presented) The method of Claim 1, wherein the vascular endothelial sphingosine-1-phosphate receptor agonist stimulates phosphorylation of an Akt protein kinase, an ERK protein kinase, or a combination comprising one or more of the foregoing kinases.

- 7. (Previously Presented) The method of Claim 1, wherein the vascular endothelial sphingosine-1-phosphate receptor is S1P<sub>1</sub>, S1P<sub>2</sub>, S1P<sub>3</sub>, S1P<sub>4</sub>, S1P<sub>5</sub>, or a combination comprising one or more of the foregoing receptors.
- 8. (Previously Presented) The method of Claim 7, wherein the vascular endothelial sphingosine-1-phosphate receptor agonist induces adherens junction assembly.
- 9. (Previously Presented) The method of Claim 1, wherein the vascular permeability disorder is endothelial injury, thrombocytopenia, atherosclerosis, ischemic cardiovascular disease, ischemic peripheral vascular disease, a peripheral vascular disorder associated with diabetes, Dengue hemorrhagic fever, adult (acute) respiratory distress syndrome, vascular leak syndrome, sepsis, autoimmune vasculitis, or a combination comprising one or more of the foregoing disorders.
- 10. (Withdrawn) A method of treating an individual in need of treatment for unwanted vascular endothelial cell apoptosis, comprising administering to the individual in need of treatment for unwanted vascular endothelial cell apoptosis a therapeutically effective amount of a vascular endothelial sphingosine-1-phosphate receptor agonist, a pharmaceutically acceptable form thereof, or a phosphorylated form thereof, wherein the vascular endothelial sphingosine-1-phosphate receptor agonist is not sphingosine-1-phosphate, and wherein the unwanted vascular endothelial cell apoptosis is not related to transplant rejection.
- 11. (Withdrawn) The method of Claim 10, wherein the vascular endothelial sphingosine-1-phosphate receptor agonist is a 1,2-aminoalcohol, a pharmaceutically acceptable salt thereof, or a phosphorylated form thereof, having the formula

$$R_4$$
  $CH_2OR_3$   $N-C-CH_2(O)_nR_3$   $R_5$   $H_2C-R_1$ 

wherein  $R_1$  is a substituted or unsubstituted straight- or branched carbon chain having 12 to 22 carbon atoms, and each of  $R_2$ ,  $R_3$ ,  $R_4$  and  $R_5$  are independently hydrogen or lower alkyl.

- 12. (Withdrawn) The method of Claim 11, wherein  $R_1$  is interrupted by a substituted or unsubstituted phenylene.
- 13. (Withdrawn) The method of Claim 12, wherein the vascular endothelial sphingosine-1-phosphate receptor agonist is 2-amino-2-[2-(4-octaphenyl)ethyl]propane-1,3 diol, 2-amino-2-methyl-4-[4-heptoxy-phenyl]butane-1-ol, 2-amino-3-phosphate-2-[2-4-octaphenyl)ethyl]propane-1-ol, 2-amino-2-methyl-4-[4-heptoxy-phenyl]1-diphosphoric acid, or a combination comprising one or more of the foregoing agonists.
- 14. (Withdrawn) The method of Claim 12, wherein the vascular endothelial sphingosine-1-phosphate receptor agonist is phosphorylated by sphingosine kinase-2.
- 15. (Withdrawn) The method of Claim 12, wherein the vascular endothelial sphingosine-1-phosphate receptor agonist stimulates phosphorylation of an Akt protein kinase, an ERK protein kinase, or a combination comprising one or more of the foregoing kinases.
- 16. (Withdrawn) The method of Claim 10, wherein the vascular endothelial sphingosine-1-phosphate receptor is S1P<sub>1</sub>, S1P<sub>2</sub>, S1P<sub>3</sub>, S1P<sub>4</sub>, S1P<sub>5</sub>, or a combination comprising one or more of the foregoing receptors.
- 17. (Withdrawn) The method of Claim 10, wherein the unwanted vascular endothelial cell apoptosis is related to an apoptosis-related disorder.
- 18. (Withdrawn) The method of Claim 17, wherein the apoptosis-related disorder is idiopathic cardiomyopathy, cardiomyopathy induced by drugs, cardiomyopathy induced by chronic alcoholism, familial cardiomyopathy, viral myocarditis, viral cardiomyopathy, cardiac infarction, cardiac angina, peripheral thrombosis, congestive heart failure, arrhythmia, cerebral stroke, subarachnoidal hemorrhage, cerebral infarction, cerebral thrombosis, or a combination comprising one or more of the foregoing disorders.
- 19. (Withdrawn) The method of Claim 10, wherein the unwanted vascular endothelial cell apoptosis is associated with radiation therapy.
  - 20. (Withdrawn) A method of treating a mammal in need of stimulation of new blood

vessel formation, comprising administering to the mammal in need of stimulation of new blood vessel formation a therapeutically effective amount of a vascular endothelial sphingosine-1-phosphate receptor agonist, a pharmaceutically acceptable form thereof, or a phosphorylated form thereof, wherein the vascular endothelial sphingosine-1-phosphate receptor agonist is not sphingosine-1-phosphate.

21. (Withdrawn) The method of Claim 20, wherein the vascular endothelial sphingosine-1-phosphate receptor agonist is a 1,2-aminoalcohol, a pharmaceutically acceptable salt thereof, or a phosphorylated form thereof, having the formula

$$\begin{array}{c|c} R_4 & CH_2OR_3 \\ N-C-CH_2(O)_nR_3 \\ R_5 & H_2C-R_1 \end{array}$$

wherein  $R_1$  is a substituted or unsubstituted straight- or branched carbon chain having 12 to 22 carbon atoms, and each of  $R_2$ ,  $R_3$ ,  $R_4$  and  $R_5$  are independently hydrogen or lower alkyl.